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Conflicting goals and mixed roles in risk regulation: a case study of the Norwegian Petroleum Directorate* Preben H. Lindøe and Odd Einar Olsen

This paper discusses the challenge of a regulator being on a position of preventing organisational accidents in high-technology domains when causes are complex, often poorly understood and with an open or hidden expectation of adding values to society. The purpose of the paper is to assess the combination of mixed roles when a regulator combines the task of facilitating resources management along with controlling the accompanied risks - multiple goals that may be in opposition to each other and mixed roles that may serve opposite interests. The roles and goals of Norwegian Petroleum Directorate (NPD), divided after 30 years of successful operation, are used as a case study. The analysis shows that separating the mixed roles of NPD seems reasonable. However, multiple goals embedded in the resource development create dilemmas facing institutions in the market as well as the regulating authorities in their effort to realise their purpose. That cannot be suspended by a shortcut redesign or new division of labour in ministries, directorates or agencies. The Janus face is a reminder of risks as essential human and social phenomena, being particularly true in sectors and arenas where economic, social and technological risks being at stake.

Keywords: risk regulating; regulators role; conflicting goals; petroleum industry

Introduction

Risk regulation and risk management are means for regulators such as governmental actors and enterprises. The goal of these regulators in their effort is to reduce the likelihood of unwanted occupational risks and harmful consequences faced by the people, the environment, material and economic assets. The regulatory and management processes imply collective decisions based on interactions between governmental and administrative actors, science communities and actors within civil society at different levels (Rasmussen 1997; Rasmussen and Svedung 2000). The concept of risk governance illuminates the contextual aspects by including legal framework, governmental structure, risk perceptions and organisational capacities (Renn 2005, 2008). Both regulator and the regulated are seeking for new concepts and tools for risk-based regulation and safety management (Ayres and Braithwate 1992; Hood, Rothstein, and Baldwin 2001).

This paper looks at 'the regulator's unhappy lot' (Reason 1997) of being on the challenging position of preventing organisational accidents in high-technology domains when causes are complex and often poorly understood and with an open or hidden expectation of adding values to society (Baldwin and Cave 1999; Reason 1997). The Norwegian Petroleum Directorate or Authority (NPD) was established in 1972 in order to handle the emerging exploration and production of oil in the North Sea. Its safety division became a strong actor in promoting the new safety regime

based on enforced self-regulation both in Norway and towards agencies and institutions abroad (Karlsen and Lindøe 2006; Kringen 2009; Vogel 1998; Walters 1998). The concept implies that part of the regulatory process is delegated to the stakeholders, but under condition given by the authority as regulator and are coined as enforced self-regulation (internal control in the Norwegian context) (Hopkins and Hale 2002).

After 30 years of operation, the Norwegian Parliament decided to split NPD and establish a new Petroleum Safety Authority (PSA) in January 2004. The case is used with the purpose of discussing two issues: Firstly, how a regulator handles value creation and resources development combined with controlling the accompanied risk – goals that may be in opposition to each other; and secondly, how the regulator may handle combination of roles that may serve opposite interests.

Ambiguity of technological risk and regulation

Technological risk

Traditionally, most practical and theoretical approaches to technological risks adopt a rather techno-centric view limiting it to probabilities and perceived consequences. In line with the strict guidelines of using scientific language as mentioned above, Britain's Royal Society in 1983 published a report on 'risk assessment' that became authoritative, confident and purposeful in prevailing the international orthodoxy on the subject of risk (Adams 1995). The report defined risk as 'The probability that a particular adverse event occurs during a stated period of time, or result from a particular challenge. As a probability in the sense of statistical theory, risk obeys all the formal laws of combining probabilities'. Ten years later, in 1992, the Royal Society returned to the subject after having reviewed the 'objective–subjective risk debate', stating that 'risk perception cannot be reduced to a single subjective correlate of a particular mathematical model of risk, such as the product of probabilities and consequences, because this imposes unduly restrictive assumptions about what is an essential human and social phenomenon' (Royal Society 1992, 89).

This shift in position illustrates how the concept of risk has been extended from a definable and measurable phenomenon possible to calculate in exact terms, to a variety of definitions, concepts and interpretations. One of the liveliest debates in social and cultural theory in recent times is the issue of risk and the role it plays in social life. Lupton (1999) points to three major approaches: cultural/symbolic theory (Douglas 1986, 1992), risk society perspectives (U. Beck 1992) and 'governmentality' represented by authors such as Foucault (1991), Castel (1991), etc. In addition, numerous practical definitions appear in engineering, economic decision-oriented perspectives and in almost all social sciences. Concepts of risk have become highly political, and will thereby also be a social construction designed to serve specific interests.

People require higher safety and reliability, and different interest groups are increasingly occupied with risks and dangers. Arguments about risks and hazards are often used to promote quite different agendas and goals. Such arguments are hard to disagree with because nobody would like to be regarded as being against improved safety. The societal debate related to these issues is characterised by talk at cross purposes, by mistrust as objective facts are mixed with judgements and values, and the cases are often presented in a non-systematic way as far as risk and uncertainty are concerned (Aven and Kristiansen 2005).

The 'Janus face' may serve as metaphor in communicating the ambiguity of technological risks (Lindøe and Olsen 2006). Janus was a Roman god and the name is probably derived from the word ianua, meaning 'door' with entries, transit and exits. Janus is also associated with the god Mercury, the protector of business, trade and commerce. The metaphor may uncover the simultaneously rational and irrational character of leadership, revealing the fundamental uncertainties facing managers (Sjöstrand 1997). The first portrait of Janus is from around 250 BC, where he can be envisaged as manager of organisational boundaries, entailing opportunities and restrictions, inputs and outputs. In our case the metaphor fits into the homeostasis model as presented by Wilde (2001) and Adams (1995), as illustrated in Figure 1.

Figure 1 illustrates the ambiguity of risk and the dynamic process of balancing benefits/rewards and risk-willingness (left face of Janus) with a possible loss/accident and risk-aversion (right face).

Regulation

The legitimate base for risk regulations is grounded in common values. Citizens should be protected against risks, implying that no use of technology should damage individual or public interests. Consequently, it was in the public interest to prevent or reduce occupational hazards and risks. Recognising that risk was a result of choices, members of a society could negotiate and re-negotiate organisational designs of risk-producing systems (Douglas and Wildavskys 1982). Towards the end of the last century, a re-orientation in the direction of self-regulation emerged (Baldwin and Cave 1999). This change in regulation regime stemmed from the modernisation of the Western capitalist and democratic society in which reflexivity became a core concept (U. Beck, Giddens, and Lash 1994).

Risk regulation regime denotes the complexity of risk issues in society, institutions, agencies and stakeholders (Ayres and Braithwate 1992; Hood et al. 2001; Hutter and Jones 2007; Renn 2008). Hood et al. (2001) adopts a cybernetic framework (information gathering, standard setting and behaviour modification) and offers an overall organising of categories linked to the context and content of regulation. The contextual aspects refers to the backdrop of regulation such as what



Figure 1. Janus face and the ambiguity of risk. Source: Authors' compilation.

kind of risks are being addressed and how risk perception varies amongst different groups within the society; who are the various actors producing or being affected by the risk, how are they organised, and what kind of public preferences and attitudes are related to the risk while the content characterise the regulator.

Context and approach

The context

The Norwegian Continental Shelf (NCS) is the largest in Europe, three times larger than the Norwegian land area, and Norway is presently the world's tenth largest producer of oil and the fifth largest oil exporter. The petroleum sector contributes significantly to the economic growth in Norway and financing the welfare state. Through nearly 40 years of operation, the industry has generated values in excess of NOK 6000 billion in current terms and accounts for 24% of value creation for the society in 2007. Gas activities comprise an increasing part of the petroleum sector, and the export supply approximately 16% of the European gas consumption. Beyond the resources used to cover the non-oil budget deficit, the state's revenues from petroleum activities are allocated to a separate fund, the Government Pension Fund which by the end of 2007 has reached the value of NOK 2000 billion (NPD 2008). The industry covers a complex of actors, technologies and a number of national and international companies with about 80,000 people employment directly linked to the industry, of which some 22,000 work offshore. The economic activity following from the offshore production has many spin-offs in the industrial sector and in local communities. Licensees and operators with subcontractors and suppliers within construction, maintenance and marine operations become driving forces for continuously exploring and developing the continental shelf. Local politicians and communities, especially in the northern Norway, are struggling for new industrial activities and workplaces. Other stakeholders as fisheries and environmental groups are reluctant to the expanding activity in a vulnerable marine environment with the risk of damaging marine and artic biologic systems.

In 2000 a government commission reviewing 'societal safety and emergency preparedness' suggested that all or most of these regulatory regimes be reorganised under one single ministry in order to make societal safety (broadly defined), more 'visible' in the political landscape, to provide a more transparent allocation of responsibilities, and to coordinate the various regimes (Hovden 2004). The NPD was an important exception to a fragmentary system of regulation and it was thus used as a benchmark in the arguments provided for more integrated systems. As presented by Kringen (2009), the 'NPD model' became a point of reference in the discussions that followed. Not only did NPD cover an exceptionally broad range of health and safety issues (occupational health, and all areas of technical safety), it was also authorised to coordinate all public supervisory activities directed towards the licensees, including the supervisory activities in the areas of pollution/environment and health services. That is, the NPD system was unitary and integrated in terms of regulatory purpose in one specific industrial sector, with a defined and delimited target group; following the traditional categories of organisational specialisation, it appeared as relatively specialised in the former sense and very specialised in the latter. At the same time this arrangement deviated from the more general model of having sector-independent regimes with more specified and narrowly defined

regulatory purposes. It thus fragmented the follow-up of the work environment act, and separated safety regulations in onshore and offshore industries.

Approach

The method used follows the argument of Yin (2003); by using critical samples as 'cases' it is possible to utilise the findings and identify some main generic features providing valid knowledge about organisational performance within safety regulation. The empirical basis for the analysis is multiple sources of data. At first, it is a general background from research projects in the Norwegian oil industry undertaken during the last 15 years and a portfolio of project related to technological change, safety management and regulation. Data comes from a 'trailing-research' (evaluation) process with the purpose of facilitate and evaluate organisational change in NPD (Olsen and Lindøe 2004). The methodology is in line with a qualitative approach in collecting data (Denzin and Lincoln 1994; Lincoln and Guba 1985; Olsen and Lindøe 2004). The data was gathered through participation and dialogue within NPD and interviews with representatives from the authorities and industry. A panel of 12 employees was used as a 'mirror' of the internal processes, but also as an arena for discussions between employees and evaluators. Data from the change process and feedback was presented as documents and discussed at five meetings in the Working Environment Committee and seven meetings with management and union representatives. That ensured the credibility and confirmed the validity amongst the internal stakeholders.

The NPD case

The Norwegian Petroleum Directorate or Authority (NPD) was established in the 1970s in order to handle the emerging exploration and production of oil in the North Sea. It became a strong and independent regulatory authority, and it has played an important role in developing a safety regime on the NCS (Hovden 2002).

Major accidents as the blow-out on the 'Bravo' platform in 1977, the capsizing of the 'Alexander Kielland' platform in 1980 where 123 workers died and severe incidents as the gas leakage at the Snorre platform in 2004 (Schiefloe and Vikland 2006) are reminders of the risk potential following the operations. The first two accidents gave a momentum to an innovative process of transferring the control regime from reward and punishment to mutual understanding and cooperation. The NPD started a process of developing new regulations, and in 1981 new rules concerning Licence's internal control (IC) were established, followed in 1985 by the regulation of IC (Braut and Lindøe 2008). The adoption of IC was implemented by the 'three-pillar system' based on the world's possibly most stringent labour legislation, i.e. the Norwegian Work Environment Act of 1977, a densely unionised offshore industry with extensive collective bargaining rights and a comprehensive network of safety representatives. The relatively strong and autonomous NPD and a Quality Assurance system put in place by the companies played a vital role (M. Beck et al. 1998).

The authorities launched a long-term research programme called 'Safety at the shelf', and the companies established 'goodwill agreements' and 'industrial cooperation agreements' which stimulated and funded new R&D activities. At the end of the 1990s, the authorities established new means for the improvement of

safety; a safety forum for dialogue and exchange of information together with the 'risk trend project' in cooperation with the industry.

Affiliation to superior authority and ministry was discussed repeatedly since NPD was established. In 1977 a decision was taken that safety issues related to the NCS has to be transferred from at the time Ministry of Industry to another ministry, and as a consequence the control function related to NPD should follow. In defiance of political initiatives no formal decision was taken. However, in 1979, one year after establishing a new Ministry of Oil and Energy (A) the constitutional responsibility for safety on the shelf was transferred to the Ministry of Work¹ (B) and administration (Ryggvik and Smith-Solbakken 1997).

In the former NPD the preamble states two different overriding goals. At first they should contribute in maximising values for the society with regard to a responsible resource management. That implied a balance between politics and market by setting limitation on how many resources to be taken out from time to time. Secondly, as a controller NPD should balance between consideration of production and health, environment and safety through the whole industrial chain from exploration to production. As regulator NPD combined two roles; one as professional and technical adviser towards the ministries and another role as regulator towards the industry. This combination of tasks and roles implied four different groups of activities, as shown in Figure 2.

From 1986 and up to 2001 major organisational changes took place within NPD in order to meet the challenges from a demanding industry. At first, the safety department of NPD was organised in a matrix form. In 1999 the resource department made a radical transition into semi-autonomous groups, and in 2001 the group-based concept was introduced in the whole NPD, a radical innovation in public administration in Norway. (Laudal, Lindøe, and Nesvåg 2002). NPD gives three purposes for the change: (1) a wish to appear with an overall picture of the two-folded responsibility and bridge the gap between the two different cultures in the

| | | Means directed towards | | | |
|---|--------------|---|--|--|--|
| | | Creating the highest possible value for society | Being responsible for overlooking health, safety and aminormant | | |
| | | 1 | 2 | | |
| | Professional | Supplier of | Development of | | |
| R | adviser | conditions and | regulations and | | |
| | | advice. | procedures. | | |
| 0 | | Dialogue with | Dialogue with | | |
| | | Ministry (A) and | Ministry (B) and | | |
| 1 | | industry | industry | | |
| | | 3 | 4 | | |
| e | Regulating | Designing | Ensuring that claims | | |
| | authority | incentives, prepare | are met. | | |
| S | | applications, and | Dialogue with | | |
| | | licensee. | industry | | |
| | | Dialogue with | | | |
| | | industry | | | |

Figure 2. Patterns of activities in NPD.

resource and safety departments, (2) a better use of the internal capabilities as competence and resources and (3) better accommodating of project across professional barriers.

Figure 3 gives a view of the different phases of the change process. The resource department is placed at the left and the safety department at the right, being responsible to Ministry of Oil and Energy (A) and Ministry of Work and Administration (B) respectively. A group-based structure with the dark and grey dots was established in 2001, dots referring to teams with respective resource and safety tasks. The stippled circles in the 2001 structure refer to a division of labour in three internal groups.

Confronted with external and internal challenges the flat and flexible organisational structure was an effort to make NPD more robust. The CEO stated in the internal magazine:

The reorganisation of NPD, where the division of labour between the resource and safety department was taken away, shows how we emphasise and give priority to see the safety and resource as close related issues. Good safety gives higher revenue and thereby increases the value creation at the continental shelf.

External assessment

With the aim of facilitating organisational learning within NPD, a monitoring and assessment process was established. The task was given high priority due to its importance in the restructuring process. The design was worked out in close cooperation between the external assessment team, the management, the unions and the Working Environment Committee. The team realised that the dilemmas between developing resources and handling risks appeared as 'tacit knowledge' within NPD. The official attitude was that the two tasks actually had positive synergy effects on each other. An integrated approach, whereby the two tasks were executed in parallel, made it possible to work out the best solutions both for the industry and for society.



Figure 3. Organisational changes in NPD.

There were no open conflicts between the two tasks, and risk control was seen as a contribution to increased productivity, not as a source of conflict. However, the new flat structure with the semi-autonomous groups implied two unfavourable consequences. First, it became difficult for external stakeholders to understand and communicate with the restructured NPD, leading to frustration and lack of trust in the relationships between NPD and the industry. Secondly, handling the dilemmas of conflicting goals was transferred from the institutional to a group level or even to an individual level.

As part of their intervention the assessment team introduced the Janus metaphor. In the process of reframing principles and redesign of the organisation the metaphor was meant as a mean for 'naming and framing' tacit or hidden issues that could be brought on the table for discussion. The communication that was raised by this metaphor revealed dilemmas in NPD about the possible conflicting interests, both internally and towards external stakeholders. On one side, the metaphor caused negative reactions from some of the managers and employees who felt it contributed to a negative picture of NPD with confusing opinions and role conflicts. They were afraid of causing misinterpretations about the new organisation in the ministries, amongst petroleum companies and other external partners. Some were even provoked by the metaphor, saying that it legitimised a split in the institution:

The Janus face is a strong metaphor, and I wished they never had used it. I believe the researchers; by focusing so much on resource administration and safety, have contributed to a political alibi for politicians who planned to split NPD. I find that extremely unfavourable regarding a holistic administration of the petroleum resources.

On the other side, the CEO regarded the metaphor quite relevant for the role of NPD by saying:

What surprises me is that some apparently find it surprising that such a Janus face exists. It does not only exist in NPD – and it will not disappear with reorganising – one cannot organise away from it. If you want to do business with petroleum, the question is, on one hand to create values, and on the other, not to waste values and inflict hazard and damage on society. To me the Janus face symbolizes that you continuously have to balance interests against each other. We can discuss on what level this balance shall take place, but we can't get rid of it. (Schwebs 2004, 68-70)

Most people seem to agree that the metaphor had been helpful as a mean of facilitating internal discussions and reflections about roles and responsibilities amongst management and employees. Regardless of their position, informants unanimously agreed that the metaphor was an important element in the organisational learning process. This was especially due in the process of framing the potential conflicts between resource development and the role as a regulatory authority. The trailing research project was terminated in October 2002.

The splitting of NPD

The White paper to the parliament (St.meld.nr.17, 2002–2003) admitted that in defiance of potential role conflicts there had not been raised any case within the agency or the two ministries, and potential conflicting goals within the agency had not 'resulted in problems in relation to individual cases'. A parliamentary decision of setting up PSA as a new agency came out of a principal point of view where 'one

issue – one agency' seems to be a guiding principle: 'As a principle it is important to ensure an indisputable legitimacy and authority issues relating to safety' (St.meld.nr.17, 2002–2003) However, regarding the issue of splitting, the industry, unions and NPD itself were all against the proposition. The effect of the reform was to 'de-centralise' the already existing division of responsibility at the ministerial level, making it penetrate all hierarchical levels down the front line bureaucracy. The responsibility for making coordinated and harmonised trade-offs had now been formally removed from the agency level (Kringen 2009).

Looking at the preambles for respectively NPD and PSA the double set of goals is still there, as shown in Figure 4.

The preambles contain similar formulations regarding value creation and safety issues, however with the factor presented in different orders (marked as bold letters). The White paper (St.meld.nr.17, 2002–2003) claims that it will be inconvenient to develop overlapping competence within the two organisations. Therefore, they should draw on one another's competence in a tidy manner without mixing their roles. In 2001–2003 many joint activities and projects were established related to the different phases of the value creation in the pattern of semi-autonomous groups where competence from resource and safety personnel was needed. In Figure 5 examples of working areas are presented where the three columns indicating different modes of cooperation depending on who have the legal responsibility (Lindøe and Laudal 2004).

The PSA and NPD respectively may give their suggestions depending on who are in charge of giving recommendation or taking decision, or they can establish mutual projects. Cooperation may also be met by procedures of consultation in front edge or after a project or activity in different phases of production.

| | NPD shall | PSA shall | | | | |
|---|---------------------------------------|--|--|--|--|--|
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | Contribute to creating the greatest | Stipulate premises and follow up to ensure that | | | | |
| | | | | | | |
| | possible values for society from the | the players in the petroleum activities maintain | | | | |
| | | | | | | |
| | oil and gas activities | high standards of health, environment, safety | | | | |
| | | | | | | |
| G | | and emergency preparedness | | | | |
| | | | | | | |
| 0 | | | | | | |
| | | | | | | |
| a | By means of prudent resource | And thereby also contribute to creating the | | | | |
| | | | | | | |
| 1 | management based on safety, | greatest possible values for society | | | | |
| | | | | | | |
| | emergency preparedness, and | | | | | |
| | | | | | | |
| | safequarding of external environment. | | | | | |
| | · · | | | | | |

Figure 4. Goals of NPD and PSA.

| | Type of cooperation | | |
|---|---------------------|---|---|
| Areas requiring safety and resource competence: | 1 | п | ш |
| Proposal to political authority | x | | |
| Means for increased exploration | x | | |
| Termination of fields | x | | |
| Assessing consent for exploration | | x | |
| Follow up drilling operations | | x | x |
| Cooperation regarding inspection | | x | x |
| Improve inspection methodology | | x | x |
| Assessing new actors | | | x |
| Publication issues | | | x |
| Develop and use databases | | | x |

Figure 5. Examples of areas of cooperation.

Note: I: NPD is in charge; II: PSA is in charge; III: Mutual project groups.

Discussion

Throughout its 30 years history NPD handled its multiple goals and the mixed roles by adapting different internal division of labour. The agency has been regarded as an important exception to the fragmented regulatory regime in Norway (OECD 2003).

For the minister pushing the reform 'one issue – one agency' seems to be a guiding principle for a top-down division of labour. From a parliamentary perspective where political and administrative responsibilities are at stake, the establishing of PSA seems to clarify goals, responsibilities and lines of authority between two different agencies and their superior ministries, even if NPD formerly reported to two different ministries. The splitting could be seen as clear-cut solution to the double set of goals: 'Creating the highest possible value for society' and 'Being responsible for overlooking health, safety and environment' (Figure 2). However, the argument of clarity regarding goals may be challenged.

The separation process revealed that both agencies affirm a balance of creating values as well as maintaining high standards on safety even if the priority is different (Figure 4). This understanding is based on their own experiences with the ambiguity

of risk embedded in creating economic values based on new and complex technology in vulnerable marine environment. For the regulator as well as the industrial actors, decisions about risk is a mosaic of economic, social, technical, medical and political factors where consideration has to be taken towards stakeholders at different organisation levels (Ayres and Braithwate 1992). The ambiguity of risk is inescapable and follows the industry and the regulator as a shadow. A number of ministries, directorates and agencies still are involved in different risk issues across the industry; financial, delivery contracts, security, health, environment, maritime operation, shuttling, etc. As a consequence the balancing of multiple risk elements is a part of the value-creating activities from political proposal of new fields to termination and removing platforms. An acceptance of this complexity, as represented by the Janus face, does not only exist in the petroleum business where the question is, on one hand to create values, and on the other, not to waste values and inflict hazard and damage on society. It exists in the production system of the modern risk society as formulated by Ulrich Beck (1992). That was the argument for the CEO of NPD in accepting not to organise away from the dilemma, but continuously balance interests against each other. 'We can discuss on what level this balance shall take place, but we cannot get rid of it', he says (Schwebs 2004).

The mixed roles seem to have been a more important argument for the splitting. In the White paper (St.meld.nr.17, 2002–2003) three argument are raised regarding regulators roles. Firstly, the division of labour between different agencies operating within the same sector may be unclear. An overriding goal of 'maintaining high standards of health, environment and safety' can be carried out from different regulators towards the same regulation. Secondly, political and professional issues can be interwoven. Politics is about balancing different public interests based on prioritising from democratic-elected authorities. Based on political decisions traced in rules and regulations, the regulatory agencies and first-level inspectors have to do their professional jobs. As legislative authority they should be accountable with procedures that are fair accessible and open (Baldwin and Cave 1999). Thirdly, the regulatory agencies often combine a mixture of administrative tasks, service deliveries and inspection.

Regarding the first argument the petroleum industry became an exception compared to the general fragmented system of risk regulation where NPD covered a broad range of risk issues and being authorised to coordinate all public supervisory activities directed towards the licensees. By separating the safety department of the NPD the regulatory purpose of PSA became clearer within the defined target group. On the contrary, overlapping areas of responsibility exist between the two agencies. The issue of politics and the regulators' professional role seems to be more relevant for the splitting. In a review process regarding revised regulation, the legal department of the Ministry of Justice gave critical comments to practise with to close relationship between the civil servants and the enterprises (Braut and Lindøe 2008). Development of oil and gas resources is strongly linked to global energy and environmental issues which is the responsibility of the Ministry of Oil and Energy. Emerging political conflicts around these issues may contribute to ambiguous roles as advisers for the (political) ministry and the (administrative) controlling function. The argument regarding mixture of tasks also seems relevant. The Ministry of Oil and Energy saw the resource division of NPD as their extended technical department serving them with administrative tasks and professional advice, while the safety

department should act as an inspectorate ensuring that health, safety and environmental claims were met (see Figure 2).

Rosness (2001) developed a two-dimensional chart where different decision situations and actors are positioned. This may be useful in mapping the positioning the two institutions. The vertical dimension represents the level of authority while the horizontal dimension represents exposure of hazard stretching from the blunt to the sharp end.

In Figure 6 the 'resource part' of the former NPD is placed upwards towards the left (blunt end) while the 'safety part' or agency (i.e. PSA) is placed downwards at the right towards the sharp end. Different factors contribute to this separation. Firstly, external factors may contribute as separating forces. Resource development, issues of energy and environmental exposure are high on the political agenda mobilising different stakeholders, political parties, environmental groups, etc. From this perspective NPD may be seen as allied with 'pushers' of resource development, increased production and climate damage as a consequence. On the contrary, PSA can be seen as allied with stakeholders following precautionary principles. Secondly, the asymmetry in the relationships of the agencies towards their respective ministries is an issue as already pointed at. NPD can almost be seen as an 'in-house' technical department of a ministry at the 'blunt end', while PSA acts in an autonomous role at the 'sharp end'. The third factor is the binding glue within institutional frameworks. It may be difficult to find incentives of coordinating efforts in using common resources and competences after an organisational and physical separation.

Conclusion

The purpose of the paper has been to analyse conflicting goals and mixed roles for the regulator when facing risk embedded in value creation and resources development.



Figure 6. Areas of decisions.

The analysis of NPD as a case study has revealed that the splitting can be understood from different perspectives. From a parliamentary or political perspective, a splitting may clarify goals, roles, responsibilities and lines of authority. That has been the main argument in the White paper and the basis for a final political decision. The argument follows the mainstream in regulators' effort in controlling risk. For politicians and ministries the responsibilities, lines of authority and roles are in place. Managers and professionals working with these two agencies may have an easier time focusing on their main tasks. In sum there seems to be good reasons for solving dilemmas of conflicting roles by redesigning, reorganising and setting up different regulatory agencies. However, due to institutional barriers, different focus and development of different cultures, the desire of not wasting resources by overlapping activities may be difficult to work out in practice.

Multiple goals embedded in the 'good society' creates dilemmas of the regulatory state facing institutions in the market as well as the regulating authorities in their effort to realising their purpose (Bellah 1991, 303). That seems to be particularly true when it comes to handling risk as an 'essential human and social phenomenon'. As a consequence the Janus face is part of 'the regulators unhappy lot' and cannot be suspended by a shortcut redesign or new division of labour in ministries, directorates or agencies. An understanding of the difference between sorting out a potential conflict of mixed roles and conflicting goals is vital, particularly when New Public Management reforms are the framework for streamlining public sector and regulatory agencies.

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Notes

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1. The name and responsibility of the Ministry have been changed several times the last years.

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